

**Amendments to The Claims:**

Please amend Claims 1, 2, 8, 10, 11, 17, 19, 20, 26 as shown. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended): ~~An autonomic~~ A computer system method for autonomic computing using a relational grammar, the method comprising the steps of:

a the computer ~~system program~~ reading an autonomic relational grammar from memory, the autonomic relational grammar comprising a plurality of program statements, the program statements comprising one or more lexical token statements, one or more category statements one or more relationship statements and one or more autonomic action statements, wherein a rule comprises the one or more relationship statements and the one or more autonomic action statements;

the computer ~~system program~~ sensing a change in an input value related to a first token identified by a first lexical token statement of the one or more lexical token statements;

the computer ~~system program~~ parsing the input value with the relational grammar to form an autonomic derivation tree, the autonomic derivation tree comprising the first token, a first category, a first relationship and an autonomic action;

the computer ~~system program~~ using the derived autonomic derivation tree to identify the autonomic action to be performed; and

the computer system program performing the identified autonomic action, the autonomic action comprising any one of:

configuring the computer system;  
optimizing functionality of the computer system;  
recovering the computer system from a malfunction; or  
protecting an environment of the computer system.

2. (Currently amended): The method according to claim 1, further comprising any one of:

the computer system program changing the input value related to the first token if an attribute is instantiated at initialization time; or

the computer system program changing the input value related to the first token if there is a change in a value of the first token.

3. (Previously presented): The method according to claim 1 wherein the rule further comprises a second category statement and wherein the derivation tree further comprises a second category.

4. (Previously presented): The method according to claim 1 wherein the rule further comprises a second lexical token statement and wherein the derivation tree further comprises a second token.

5. (Previously presented): The method according to claim 1 wherein the relationship statements further comprise any one of a system attribute or the relationship between any one of the first category or the first token and any one of a third category or a third token.

6. (Previously presented): The method according to claim 1 wherein the relational grammar further comprises a plurality of rule statements for defining a second rule.

7. Cancel

8. (Currently amended): The method according to claim 1 comprising the further steps of:

the computer system program determining resource objects and constraints;

the computer system program solving the constraints to form a constraint solution for the resource objects; and

the computer system program using the constraint solution to identify the autonomic action to be performed.

9. Cancel

10. (Currently amended): A system for autonomic computing using a relational grammar, the system comprising:

a network;

a computer system in communication with the network, wherein the computer system includes instructions to execute a method comprising:

a the computer ~~system program~~ reading an autonomic relational grammar from memory, the autonomic relational grammar comprising a plurality of program statements, the program statements comprising one or more lexical token statements, one or more category statements one or more relationship statements and one or more autonomic action statements, wherein a rule comprises the one or more relationship statements and the one or more autonomic action statements;

the computer ~~system program~~ sensing a change in an input value related to a first token identified by a first lexical token statement of the one or more lexical token statements;

the computer ~~system program~~ parsing the input value with the relational grammar to form an autonomic derivation tree, the autonomic derivation tree comprising the first token, a first category, a first relationship and an autonomic action;

the computer ~~system program~~ using the derived autonomic derivation tree to identify the autonomic action to be performed; and

the computer system ~~program~~ performing the identified autonomic action, the autonomic action comprising any one of:

configuring the computer system;  
optimizing functionality of the computer system;  
recovering the computer system from a malfunction; or  
protecting an environment of the computer system.

11. (Currently amended): The system according to claim 10, further comprising any one of:

the computer system ~~program~~ changing the input value related to the first token if an attribute is instantiated at initialization time; or

the computer system ~~program~~ changing the input value related to the first token if there is a change in a value of the first token.

12. (Previously presented): The system according to claim 10 wherein the rule further comprises a second category statement and wherein the derivation tree further comprises a second category.

13. (Previously presented): The system according to claim 10 wherein the rule further comprises a second lexical token statement and wherein the derivation tree further comprises a second token.

14. (Previously presented): The system according to claim 10 wherein the relationship statements further comprise any one of a system attribute or the relationship between any one of the first category or the first token and any one of a third category or a third token.

15. (Previously presented): The system according to claim 10 wherein the relational grammar further comprises a plurality of rule statements for defining a second rule.

16. Cancel

17. (Currently amended): The system according to claim 10, wherein the method further comprises:

the computer system program determining resource objects and constraints;

the computer system program solving the constraints to form a constraint solution for the resource objects; and

the computer system program using the constraint solution to identify the autonomic action to be performed.

18. Cancel

19. (Currently amended): A computer program product for autonomic computing using a relational grammar, the computer program product comprising:

a computer readable medium having computer readable program code therein for performing a method comprising:

a the computer system program reading an autonomic relational grammar from memory, the autonomic relational grammar comprising a plurality of program statements, the program statements comprising one or more lexical token statements, one or more category statements one or more relationship statements and one or more autonomic action statements, wherein a rule comprises the one or more relationship statements and the one or more autonomic action statements;

the computer system program sensing a change in an input value related to a first token identified by a first lexical token statement of the one or more lexical token statements;

the computer system program parsing the input value with the relational grammar to form an autonomic derivation tree, the autonomic derivation tree comprising the first token, a first category, a first relationship and an autonomic action;

the computer system program using the derived autonomic derivation tree to identify the autonomic action to be performed; and

the computer ~~system program~~ performing the identified autonomic action, the autonomic action comprising any one of:

configuring the computer system;  
optimizing functionality of the computer system;  
recovering the computer system from a malfunction; or  
protecting an environment of the computer system.

20. (Currently amended): The computer program product according to claim 19, further comprising any one of:

the computer ~~system program~~ changing the input value related to the first token if an attribute is instantiated at initialization time; or

the computer ~~system program~~ changing the input value related to the first token if there is a change in a value of the first token.

21. (Previously presented): The computer program product according to claim 19 wherein the rule further comprises a second category statement and wherein the derivation tree further comprises a second category.

22. (Previously presented): The computer program product according to claim 19 wherein the rule further comprises a second lexical token statement and wherein the derivation tree further comprises a second token.



23. (Previously presented): The computer program product according to claim 19 wherein the relationship statements further comprises any one of a system attribute or the relationship between any one of the first category or the first token and any one of a third category or third token.

24. (Previously presented): The computer program product according to claim 19 wherein the relational grammar further comprises a plurality of rule statements for defining a second rule.

25. Cancel

26. (Currently amended): The computer program product according to claim 19, wherein the method further comprises:

the computer system ~~program~~ determining resource objects and constraints;

the computer system ~~program~~ solving the constraints to form a constraint solution for the resource objects; and

the computer system ~~program~~ using the constraint solution to identify the autonomic action to be performed.

27. Cancel